

Quantitative Usage Analysis for Ethyl-parathion

Case Number: 0155 PC Code: 57501
Date: 12/20/99 Analyst: Istanbul Yusuf & Tim Kiely

Based on available pesticide survey usage information for the years of 1987 through 1997, an annual estimate of ethyl-parathion's total domestic usage averaged approximately 518,000 pounds active ingredient (a.i.) for 777,000 acres treated. Most of the acreage is treated with 1.2 pounds a.i. or less per application and 1.2 pounds a.i. or less per year. Ethyl-parathion is an insecticide with its largest markets in terms of total pounds active ingredient allocated to wheat (40%), and alfalfa (22%). The crops with the highest percentages of their total U.S. planted acres treated with ethyl-parathion are sunflower (3%), and canola (2%).

This quantitative usage analysis (QUA) updates estimates provided in an earlier BEAD usage profile (Herzi, 11/98). Please see attached table for estimates.

Ethyl Parathion
 Filename: ethyl_par99.wpd

Case #:0155 **AI#:**57501

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Data Years: 1987 - 1997

QUA date: 11/98

Last Edited: 12/20/99

EPA's QUANTITATIVE USAGE ANALYSIS

Site	Acres Grown (000)	Acres Treated (000)		% of Crop Treated		LB AI Applied (000)		Average Application Rate		
		Wtd Avg	Est Max	Wtd Avg	Est Max	Wtd Avg	Est Max	lb ai/ acre/yr	#appl / yr	lb ai/ A/appl
Sorghum	11394	110	170	1%	1%	50	120	0.5	1.0	0.5
Corn	74921	10	20	0%	0%	6	30	0.6	1.0	0.6
Sweet Corn	784	1	3	0%	0%	2	4	0.6	1.7	0.3
Barley	7619	27	45	0%	1%	13	29	0.5	1.0	0.5
Wheat	62627	275	540	0%	1%	205	330	0.7	1.0	0.7
Alfalfa	24534	156	227	1%	1%	114	163	0.7	1.0	0.7
Soybeans	64372	66	100	0%	0%	30	45	0.5	1.0	0.5
Sunflower	2750	88	112	3%	4%	48	72	0.5	1.0	0.5
Cotton	13606	34	46	0%	0%	40	64	1.2	1.0	1.2
Canola	500	10	15	2%	3%	10	15	0.5	1.0	0.5
Total		777	1278			518	872			

COLUMN HEADINGS

Wtd Avg = Weighted average--the most recent years and more reliable data are weighted more heavily.

Est Max = Estimated maximum, which is estimated from available data.

Average application rates are calculated from the weighted averages.

NOTES ON TABLE DATA

Usage data primarily covers 1987 - 1997. Calculations of the above numbers may not appear to agree because they are displayed as rounded to the nearest 1000 for acres treated or lb. a.i. (Therefore 0 = < 500), to the nearest whole percentage point for % of crop treated. (Therefore 0% = < 0.5%)

SOURCES: EPA proprietary data. USDA/National Agricultural Statistics Service, Agricultural Chemical Usage: Field Crops Summary. National Center for Food and Agricultural Policy. California Department of Pesticide Regulation.